

Application No. 10/731,409

Filed: December 9, 2003

TC Art Unit: 3677

Confirmation No.: 3924

IN THE CLAIMS

Please amend claims 1 and 2 as shown in the Status of the Claims section, infra. Additions are underlined and deletions are ~~struck through~~. No new matter has been added.

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STATUS OF THE CLAIMS

Claim 1 (currently amended) ~~A coupling structure for coupling between a screw shaft for driving an injection screw driving body and a motor shaft of an electric motor in an injection device,~~
An injection device, wherein a rotating movement of the screw shaft for driving an injection screw driving body cause conducted by the electric motor is converted into a linear movement of the injection screw driving body by screwing the screw shaft and a nut member positioned at the injection screw driving body with each other and injecting resin is injected according to an advancing movement of the injection screw driving body and coupling between the screw shaft and the motor shaft of the electric motor is being performed by engagement of a screw shaft spline and a motor shaft spline with each other, and the coupling comprising a bearing sleeve having:

an inner diameter for engaging one end of the screw shaft,

a flange integrally formed on an outer periphery of the bearing sleeve,

a rear portion disposed at the rear of the flange that is formed into a size fitted to a recess formed inside of an end of the motor shaft, and

an inner spline disposed at an inner periphery of the bearing sleeve;

wherein the bearing sleeve is detachably mounted to the motor shaft by fitting the rear portion of said bearing sleeve into the recess and fastening the flange on an end

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face of the motor shaft with a bolt such that the inner spline serves as the motor shaft spline; and the screw shaft spline is formed on an outer periphery on a shaft end portion of the screw shaft.

Claim 2 (currently amended). ~~The coupling structure between the screw shaft and the motor shaft in the injection device~~ according to claim 1, wherein the bearing sleeve has an annular groove at the inner periphery of an opening for the side of the screw shaft, and a ring member for air-tightly sealing a clearance formed between the screw shaft and the bearing sleeve is fitted into the annular groove.